

**IN THE DRAWINGS:**

Attached is a Submission of Replacement Drawing Sheets including a change to Fig. 6. These Replacement Drawing Sheets, which include all of Figs. 1-17 in this application, replace the previously-filed drawing sheets. In these Replacement Drawing Sheets, Fig. 6 has been amended to change the text shown in step S15 in Fig. 6 from “EMIT ONLY ERASE PULSES AS SINGLE-PULSES” to “EMIT ONLY AN ERASE PULSE AS A SINGLE-PULSE.”

**REMARKS**

**Summary of the Office Action**

Claims 3-9, 11 and 13 are withdrawn from consideration.

A shortened title is required because the previously-amended title, which is indicated as “accepted” by the Examiner, apparently exceeds a length limit.

The drawings stand objected to under 37 C.F.R. § 1.83(a).

Claim 17 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly “failing to comply with the enablement requirement.”

Claims 1, 2, 10, 12, 14 and 15 stand rejected under 35 U.S.C. § 112, first paragraph allegedly “because the specification, while being enabling for that as found with the description of figure 6 does not reasonably provide enablement for the single erase pulse as claimed.”

Claims 1, 2, 10, 12, 14 and 15 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly “failing to set forth the subject matter which applicant(s) regard as their invention.”

Claims 1, 2, 10, 12 and 14 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 and 16/14 (with respect to the product claim 12) of U.S. Patent No. 7,109,462 in view of claim 9 of the same patent.

Claims 1, 2, 10, 12 and 14 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 and 16/14 (with respect to the product claim 12) of U.S. Patent No. 7,109,462 in view of Maeda et al. and further considered with Abe et al. Examiner Psitos makes no indication of specifically what document number or document type “Maeda et al.” or “Abe et al.” are intended to refer to. Applicants are proceeding with the understanding that the Examiner intended to refer to U.S. Patent No. 5,144,601 with regard to

Maeda et al. (hereinafter "Maeda") and U.S. Patent No. 6,801,240 with regard to Abe et al. (hereinafter "Abe"). To the extent that Applicants' understandings are incorrect in any respect, the Examiner is requested to provide clarification in the next Office Communication.

Claim 15 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 of U.S. Patent No. 7,109,462 in view of claim 9 of the patent.

Claim 15 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 of U.S. Patent No. 7,109,462 in view of Maeda and further considered with Abe as relied upon in paragraph 5 of the Office Action and further considered with a) themselves with respect to claim 15 and b) alternatively claim 15 is further obvious in view of Masui et al. Examiner Psitos makes no indication of specifically to what document number or document type "Masui et al." is intended to refer. Applicants are proceeding with the understanding that the Examiner intended to refer to U.S. Patent No. 6,600,712 with regard to Masui et al. (hereinafter "Masui"). To the extent that Applicants' understandings are incorrect in any respect, the Examiner is requested to provide clarification in the next Office Communication.

Claims 1, 2, 10, 12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yokoi further considered with Maeda and Abe. Examiner Psitos makes no indication of specifically to what document number or document type "Yokoi" is intended to refer. Applicants are proceeding with the understanding that the Examiner intended to refer to U.S. Patent No. 6,664,526 with regard to Yokoi (hereinafter "Yokoi"). To the extent that Applicants'

understandings are incorrect in any respect, the Examiner is requested to provide clarification in the next Office Communication.

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the art as applied to “claims 1, 2, 10, 12, and 14 as stated in paragraph 8” in the Office Action, and further in view of Masui.

#### **Summary of the Response to the Office Action**

Applicants have amended independent claims 1, 10 and 12 to differently describe embodiments of the disclosure of the instant application’s specification and/or to improve the form of the claims by including features of previous dependent claim 15. Accordingly, claim 15 has been canceled without prejudice or disclaimer. Also, claim 17 is canceled without prejudice or disclaimer. Accordingly, claims 1-14 currently remain pending with claims 1, 2, 10, 12 and 14 currently under consideration. The title has been shortened in response to the Office Action’s requirement. A Terminal Disclaimer is submitted herewith. Fig. 6 of the Drawings is hereby amended as shown in the attached Submission of Replacement Drawing Sheets.

#### **Requirement for a New Shortened Title**

A shortened title is required because the previously-amended title, which is indicated as “accepted” by the Examiner, apparently exceeds a length limit. While the Examiner does not specify the alleged “length limit,” Applicants have proceeded by removing a part of the “accepted” previous version of the amended title. Accordingly, Applicants have replaced the

previously amended title with a new amended title. Accordingly, withdrawal of the requirement for a new title is respectfully requested.

### **Drawing Objections**

The drawings stand objected to under 37 C.F.R. § 1.83(a). The Examiner asserts that the “limitations of claims 1, 10, 12 and 17 must be shown or the feature(s) canceled from the claim(s).” In the second paragraph from the bottom of page 2 of the Office Action, the Examiner stated that “the ability of switching between an erase pulse of multi-pulses and a single pulse is not found in the figures.” Applicants note that this feature is described in claims 1, 10 and 12.

Applicants respectfully submit in this regard that an operation of switching between an erase pulse of a multi-pulse and an erase pulse of a single-pulse is carried out in a controller 180 which controls a pulse current generator 160. Applicants respectfully submit that by referring to a waveform of erase pulse shown in each of Figs. 4A and 4B, a person having ordinary skill in the associated art can clearly understand such an operation of the controller 180.

Also, in the final paragraph at page 2 of the Office Action, the Examiner stated that a controller “on its own” as described in claim 17 is not depicted in the figures. In response, Applicants have canceled claim 17 without prejudice or disclaimer, rendering the drawing objection moot with regard to this feature.

Accordingly, for at least the foregoing reasons, Applicants respectfully request that the drawing objections be withdrawn.

**Rejections under 35 U.S.C. § 112, First Paragraph**

Claim 17 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly “failing to comply with the enablement requirement.” Claim 17 has been canceled rendering this rejection moot. Accordingly, Applicants respectfully request that the rejection of claim 17 under 35 U.S.C. § 112, first paragraph be withdrawn.

Claims 1, 2, 10, 12, 14 and 15 stand rejected under 35 U.S.C. § 112, first paragraph allegedly “because the specification, while being enabling for that as found with the description of figure 6 does not reasonably provide enablement for the single erase pulse as claimed.” The Office Action goes on to assert that as “described with respect to figure 6 and its disclosure, the erase pulses are emitted as single pulses – not an erase pulse as a single pulse.” In response, Applicants have amended the text shown in step S15 in Fig. 6 to be changed from “EMIT ONLY ERASE PULSES AS SINGLE-PULSES” to “EMIT ONLY AN ERASE PULSE AS A SINGLE-PULSE.” Applicants respectfully submit that this amendment to Fig. 6 is based on a waveform of an erase pulse (a single pulse) as shown, for example, in Fig. 4B of the instant application. Applicants respectfully submit that, as a result of this change to the drawings, claims 1, 2, 10, 12, 14 and 15 fully comply with 35 U.S.C. § 112, first paragraph. Accordingly, Applicants respectfully request that the rejection of claims 1, 2, 10, 12, 14 and 15 under 35 U.S.C. § 112, first paragraph be withdrawn.

**Rejections under 35 U.S.C. § 112, Second Paragraph**

Claims 1, 2, 10, 12, 14 and 15 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly “failing to set forth the subject matter which applicant(s) regard as their invention.”

With regard to this rejection, the Office Action refers again to Fig. 6 and asserts that as “described with respect to figure 6 and its disclosure, the erase pulses are emitted as single pulses – not as a single pulse.” In response, and as noted above with regard to the similar rejection under 35 U.S.C. § 112, first paragraph, Applicants have amended the text shown in step S15 in Fig. 6 to be changed from “EMIT ONLY ERASE PULSES AS SINGLE-PULSES” to “EMIT ONLY AN ERASE PULSE AS A SINGLE-PULSE.” Applicants respectfully submit that this amendment to Fig. 6 is based on a waveform of an erase pulse (a single pulse) as shown, for example, in Fig. 4B of the instant application. Applicants respectfully submit that, as a result of this change to the drawings, claims 1, 2, 10, 12, 14 and 15 fully comply with 35 U.S.C. § 112, second paragraph. Accordingly, Applicants respectfully request that the rejection of claims 1, 2, 10, 12, 14 and 15 under 35 U.S.C. § 112, first paragraph be withdrawn.

**Double Patenting Rejections**

Claims 1, 2, 10, 12 and 14 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 and 16/14 (with respect to the product claim 12) of U.S. Patent No. 7,109,462 in view of claim 9 of the same patent. Claims 1, 2, 10, 12 and 14 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 and 16/14 (with respect to the product claim 12) of U.S. Patent No. 7,109,462 in view of Maeda and further considered with Abe. Claim 15 stands

rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 of U.S. Patent No. 7,109,462 in view of claim 9 of the patent. Claim 15 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 10/4 of U.S. Patent No. 7,109,462 in view of Maeda and further considered with Abe as relied upon in paragraph 5 of the Office Action and further considered with a) themselves with respect to claim 15 and b) alternatively claim 15 is further obvious in view of Masui.

Applicants submit a Terminal Disclaimer concurrently herewith to facilitate allowance of the present application, thereby obviating the double patenting rejections. Accordingly, Applicants respectfully request that the double patenting rejections be withdrawn.

**Rejections under 35 U.S.C. § 103(a)**

Claims 1, 2, 10, 12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yokoi further considered with Maeda and Abe. Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the art as applied to “claims 1, 2, 10, 12, and 14 as stated in paragraph 8” in the Office Action, and further in view of Masui.

Applicants have amended each of independent claims 1, 10 and 12 to include the features of previous dependent claim 15 rendering the Office Action’s rejections of claims 1, 2, 10, 12 and 14 moot. As summarized above, the Office Action’s rejection of claim 15 under 35 U.S.C. § 103(a) includes the Yokoi, Maeda and Abe references applied in combination with Masui.

Applicants respectfully submit in this regard that the applied Masui reference does not disclose, or even suggest, the feature from previous claim 15, as added to each of independent claims 1, 10 and 12 of the instant application. Accordingly, the applied art of record, whether



taken separately or in combination, do not teach the respective combinations of features described in each of the newly-amended independent claims of the instant application including the features of while an erase beam of single-pulse is used during an APC timing period, an erase beam of multi-pulse is used during a period other than the APC timing period, and an acquisition device acquires an emitted light intensity of the detected light beam as a sampling value during the APC timing period during which the erase beam of single-pulse (which has enough power as compared with an erase beam of multi-pulse) is used.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be withdrawn because the applied combination of references, whether taken separately or combined, do not teach or suggest each feature of newly-amended independent claims 1, 10 and 12 of the instant application. As pointed out by MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.’ In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” Furthermore, Applicants respectfully assert that the dependent claims 2 and 14 are allowable at least because of their dependence from independent claim 1, and the reasons discussed previously.

### **CONCLUSION**

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request withdrawal of all outstanding rejections and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants’ undersigned representative to expedite prosecution. A favorable action is awaited.

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573.

This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

**DRINKER BIDDLE & REATH LLP**

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By:



Paul A. Fournier

Reg. No. 41,023

**Customer No. 055694**

**DRINKER BIDDLE & REATH LLP**

1500 K Street, N.W., Suite 1100

Washington, DC 20005-1209

Tel.: (202) 842-8800

Fax: (202) 842-8465